

LISTING OF THE CLAIMS

The following is a complete, marked up listing of the claims with a status identifier in parentheses, underlined text indicating insertions, and strikethrough and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. – 33. (Cancelled)

34. (Previously Presented) A read-only recording medium, comprising:

a data area including at least two data sections; and

a linking area to link neighboring data sections, the linking area including two linking frames of the same size, each linking frame including a frame sync consisting of 30 channel bits in the head position and including scrambled data produced by scrambling data with address information associated with a preceding data section.

35. (Previously Presented) The recording medium of claim 34, wherein each linking frame consists of 1932 channel bits.

36. (Previously Presented) The recording medium of claim 35, wherein the linking area has same size with a linking area of a recordable recording medium.

37. (Previously Presented) The recording medium of claim 36, wherein the frame sync included in the linking area is different from a frame sync of the linking area written on a recordable recording medium during recording data.

38. (Previously Presented) The recording medium of claim 37, wherein two frame syncs included in the two linking frames are different from each other.

39. (Previously Presented) The recording medium of claim 38, wherein the frame sync included in the linking frame is different from a frame sync included in the data area.

40. (Previously Presented) The recording medium of claim 39, wherein values of the at least two frame syncs maintain uniqueness.

41. (Previously Presented) The recording medium of claim 40, wherein the frame sync includes a frame sync number and a frame sync ID.

42. (Previously Presented) The recording medium of claim 41, wherein the frame sync, including frame sync number of FS7 and frame sync ID of 100 101, is included in one of the two linking frames.

43. (Previously Presented) The recording medium of claim 42, wherein the frame sync, including frame sync number of FS8 and frame sync ID of 101 010, is included in one of the two linking frames.

44. (Previously Presented) The recording medium of claim 35, wherein the recording medium further comprises a lead-in area including management information used for controlling a reproduction of data recorded on the data area.

45. (Previously Presented) The recording medium of claim 35, wherein the linking area further includes dummy data.

46. (Previously Presented) The recording medium of claim 45, wherein the dummy data is located behind the frame sync in each linking frame.

47. (Previously Presented) The recording medium of claim 46, wherein each linking frame includes a same pattern of the dummy data.

48. (Previously Presented) The recording medium of claim 35, wherein a frame in one of the data area and the linking area is identifiable based on a combination of a frame sync of the frame and a frame sync of a preceding frame.

49. (Previously Presented) An apparatus for reproducing data from a read-only recording medium, comprising:

an optical pickup configured to reproduce data recorded on a data area of the read-only recording medium, the data area including at least two data sections;

a controller configured to control the optical pickup to identify a linking area included in the read-only recording medium, the linking area linking neighboring data sections and including two linking frames of the same size, each linking frame including a frame sync consisting of 30 channel bits in head position and including scrambled data; and

a scrambling circuit configured to descramble the scrambled data with address information associated with a preceding data section.

50. (Previously Presented) The apparatus of claim 49, wherein the controller is configured to determine whether a current area read by the optical pickup is the linking area based on the frame sync, wherein the frame sync included in the linking

area is different from a frame sync of a linking area written on a recordable recording medium during recording data and different from a frame sync included in the data area, and a frame sync included in a first linking frame is different from a frame sync included in a second linking frame.

51. (Previously Presented) The apparatus of claim 50, wherein the optical pickup is configured to read the frame sync including a frame sync number and a frame sync ID, wherein a frame sync including frame sync number of FS7 and frame sync ID of 100 101 is located in the first linking frame and a frame sync including frame sync number of FS8 and frame sync ID of 101 010 is located in the second linking frame.

52. (Previously Presented) The apparatus of claim 50, wherein the controller is configured to control a reproduction according to the result of the determination such that the data within the neighboring data sections of the data area is reproduced continuously if the controller determines the current area is not the linking area, and the data within the neighboring data sections of the data area is reproduced excluding the scrambled data if the controller determines the current area is the linking area.

53. (Previously Presented) The apparatus of claim 49, wherein the controller is configured to control a reproduction of the data read by the optical pickup by using management information included in a lead-in area of the recording medium.

54. (Previously Presented) The apparatus of claim 49, wherein the optical pickup is configured to read dummy data included in each linking frame, the dummy data being located behind the frame sync and including a same pattern.

55. (Previously Presented) The apparatus of claim 49, wherein the controller is configured to control the optical pickup to identify a frame in one of the data area and the linking area based on a combination of a frame sync of the frame and a frame sync of a preceding frame.

56. (Previously Presented) A method for reproducing data from a read-only recording medium, comprising:

identifying a linking area included in the recording medium, the linking area linking neighboring data sections included in a data area of the recording medium and including two linking frames of the same size, each linking frame including a frame sync consisting of 30 channel bits in head position and including scrambled data,

wherein the scrambled data is scrambled with address information associated with a preceding data section.

57. (Previously Presented) The method of claim 56, further comprising:

determining whether a currently read area is the linking area based on the frame sync, wherein the frame sync included in the linking area is different from a frame sync of a linking area written on a recordable recording medium during recording data and different from a frame sync included in the data area, and a frame sync included in a first linking frame is different from a frame sync included in a second linking frame; and

reproducing data recorded on the data area of the recording medium according to the result of the determining step.

58. (Previously Presented) The method of claim 57, further comprising:

descrambling the scrambled data with the address information associated with a preceding data section.

59. (Previously Presented) The method of claim 57, wherein the reproducing step reproduces the data continuously if it is determined that the currently read area is not the linking area, and reproduces the data excluding the scrambled data if it is determined that the currently read area is the linking area.

60. (Previously Presented) The method of claim 56, further comprising:

reading management information from a lead-in area of the recording medium to control a reproduction of the data recorded on the data area.

61. (Previously Presented) The method of claim 56, further comprising:

reading dummy data included in each linking frame, the dummy data being located behind the frame sync and including a same pattern.

62. (Previously Presented) The method of claim 56, wherein the identifying step identifies a frame in one of the data area and the linking area based on a combination of a frame sync of the frame and a frame sync of a preceding frame.

63. (Previously Presented) An apparatus for recording data on a recording medium, comprising:

an optical pickup configured to record data on the recording medium, wherein the recording medium comprises a data area including at least two data sections and a linking area linking neighboring data sections;

a scrambler circuit configured to scramble data with address information associated with a preceding data section; and

a controller configured to control the optical pickup to record the linking area, the linking area including two linking frames of the same size, each linking frame including a frame sync consisting of 30 channel bits in the head position and including the scrambled data.

64. (Previously Presented) An apparatus for manufacturing a recording medium, comprising:

an optical pickup configured to record data on the recording medium, wherein a data area including at least two data sections and a linking area including at least two linking frames of the same size and linking neighboring data sections are formed during recording the data;

a scrambler circuit configured to scramble data with address information associated with a preceding data section; and

a controller configured to control the optical pickup to record a frame sync consisting of 30 channel bits in the head position of each linking frame and the scrambled data during recording the data.